

WHAT IS CLAIMED IS:

1. A tool holder for quick mounting and dismounting an annular core bit (2), comprising a guide member (4) provided at a bit-side end of the tool holder (1); a hollow, freely rotatable flange (3) arranged coaxially with the guide member (4) for axially locking same and having an inner thread; an outer cone surface (6) located inwardly of the guide member (4) and axially spaced therefrom, the outer cone surface (6) tapering toward the bit-side end of the tool holder (1); and torque transmitting means (5) arranged between the guide member (4) and the outer cone surface (6).

2. A tool holder according to Claim 1, wherein the guide member (4) comprises an outer cylindrical surface.

1. A tool holder according to Claim 1, wherein the outer cone surface (6) tapers toward the bit-side end of the tool holder (1) at a cone angle (α) from 10° to 15° .

4. A tool holder according to Claim 3, wherein the cone angle (α) amounts to 12.5° .

5. A tool holder according to Claim 1, wherein an axial center of the guide member (4) is spaced from an axial center of the outer cone surface (6) by a distance (X) amounting to from 25mm to 50mm.

6. A tool holder according to claim 5, wherein the distance (X) between the axial centers of the guide member (4) and the outer cone surface (6) amounts to 35mm.

7. A tool holder according to Claim 1, wherein the torsion transmission means (5) is formed as channel toothing.

8. A tool holder according to Claim 1, wherein the inner thread of the flange (3) is formed as a round thread (17).

9. A tool holder according to Claim 8, wherein the inner thread is formed as a left-hand round thread having a diameter of 55 mm.

10. A tool holder according to Claim 1, wherein the tool holder (1) is formed as a hollow part.

11. A tool holder according to Claim 1, comprising an adapter (11).

12. A tool holder according to Claim 11, wherein the adapter (11) has

two, axially spaced, outer cone surfaces (12a, 12b) tapering inwardly from the bit-side end of the tool holder, and an axial spline shaft portion (13) located between the outer cone surfaces (12a, 12b).

13. A shank of an annular core bit (2) adapted to be quick mounted on and dismounted from a tool holder, the shank (8) comprising a guide member (4') provided at a bit-side end of the shank (8); a flange (9) arranged coaxially with the guide member (4) for axially locking same and having an outer thread; an inner cone surface (10) located inwardly of the guide member (4') and axially spaced therefrom the inner cone surface (10) tapering toward the bit-side end of the shank (8); and torque transmitting means (5') arranged between the guide member (4') and the outer cone surface (10)

14. A shank according to Claim 13, wherein the guide member (4) comprises an inner cylindrical surface.

15. A shank according to Claim 13, wherein the inner cone surface (10) tapers toward the bit-side end of the shank (8) at a cone angle (α) from 10° to 15°.

16. A shank according to Claim 15, wherein the cone angle (α) amounts to 12.5°.

17. A shank according to Claim 13, wherein an axial center of the guide member (4') is spaced from an axial center of the outer cone surface (1) by a distance (X) amounting to from 25mm to 50mm.

18. A shank according to Claim 17, wherein the distance (X) between the axial centers of the guide member (4') and the outer cone surface (10) amounts to 35mm.

19. A shank according to Claim 13, wherein the torsion transmission means (5') is formed as inner channel toothing.

20. A shank according to Claim 13, wherein the outer thread of the flange (9) is formed as a round thread (18).

21. A shank according to Claim 20, wherein the outer thread is formed as a left-hand round thread having a diameter of 55 mm.

22. A shank according to Claim 1, wherein the shank (8) is formed as a hollow part.

23. A shank according to Claim 13, comprising an adapter (14).
24. A shank according to Claim 23, wherein the adapter (14) is provided at bit-side end thereof with an outer thread (15).
25. A shank according to Claim 24, wherein the thread (15) is a M41x2 thread.
26. A tool holder-shank system for quick mounting and dismounting an annular core bit (2), comprising a tool holder having a guide member (4) provided at bit-side end of the tool holder (1), a hollow freely rotatable flange (3) arranged coaxially with the guide member (4) for axially locking same and having an inner thread; an outer cone surface (6) located inwardly of the guide member (4) and axially spaced therefrom the outer cone surface (6) tapering toward the bit-side end of the tool holder (1) and torque transmitting means (5) arranged between the guide member (4) and the outer cone surface (6); and a shank connectable with the annular core bit and having a guide member (4') provided at a bit-side end of the shank (8) and cooperating with the guide member (4) of the tool holder (1), a flange (3) arranged coaxially with the guide member (4') for axially locking same and having an outer thread cooperating with the inner thread of the flange (3) of

the tool holder (1), an inner cone surface (10) located inwardly of the guide member (4') and axially spaced therefrom, the inner cone surface (10) tapering toward the bit-side end of the shank (8) and cooperating with the outer cone surface (6) of the tool holder, and torque transmitting means (5') arranged between the guide member (4) and the inner cone surface (10) and cooperating with the torque transmitting means (5) of the tool holder (1).